NMCC/DECnet Monitor Installation

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This manual describes the procedures for installing and verifying NMCC/DECnet Monitor software.

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Preface

This installation guide provides NMCC/DECnet Monitor software installation requirements, explains how to install and verify the software, and describes tasks you need to perform after installing the software.

Intended Audience

This manual is intended for network managers who are familiar with both DECnet and VMS concepts.

Other NMCC/DECnet Monitor Documents

- *NMCC/DECnet Monitor Release Notes* (on-line)

  This collection of notes contains information and updates not included in the NMCC/DECnet Monitor manuals. The release notes are delivered on-line as part of the software distribution kit.

- *NMCC/DECnet Monitor Introduction*

  This manual outlines the various ways in which the NMCC/DECnet Monitor can be used to monitor and report on network activity. This manual also describes how the NMCC/DECnet Monitor collects, displays, and reports on network data.

- *NMCC/DECnet Monitor Implementation*

  This manual describes how to plan the NMCC/DECnet Monitor database and the methods for adding data to the database. It also describes the procedures for creating and manipulating the on-line network map.

- *NMCC/DECnet Monitor User's Guide*

  This manual defines the NMCC/DECnet Monitor user interface by describing the displays and commands, the screen design, and the function keys used for cursor positioning, editing, and command execution. This manual also defines the formulas used to calculate traffic and error statistics, the user-specifiable parameters, and the NMCC/DECnet Monitor diagnostics messages.

- *NMCC/DECnet Monitor Guide to DECnet Reports*

  This manual defines the NMCC/DECnet Monitor's reporting capabilities and defines the commands and parameters that are used to produce reports.

- *NMCC/DECnet Monitor Display Fields*

  This guide defines the fields that appear in the NMCC/DECnet Monitor screen displays.

- *NMCC/DECnet Monitor Pocket Reference Guide*

  This reference guide summarizes command syntax and other useful information.

Conventions

Familiarize yourself with the conventions discussed in this section to help you use this manual effectively. The following conventions apply to numbers:

- All numbers are decimal unless otherwise noted.
- All Ethernet addresses are given in hexadecimal.

Graphic Conventions Used in This Manual

Convention	Meaning
`Special type`	Indicates examples of system output or user input. System output is in black; user input is in red.
UPPERCASE	In command lines, indicates keywords to be entered. Note that you can type the characters in either uppercase or lowercase. Command keywords can be abbreviated to the smallest number of characters that your system accepts. For example, the following two commands are the same: `NCP> SHOW NODE` *`node-name`* or `NCP> SH N` *`node-name`*
italics	Indicates a variable.
bold	Indicates an important term that is defined in the text.
[ ]	In installation dialogs, indicates that the enclosed value is the default. To specify the default, press Return. To specify another value, type it after the brackets and press Return. In command lines, indicates that you can enter one, and only one, of the enclosed options, but that none is required. Do not type the brackets.
{ }	Indicates that you must enter one, and only one, of the enclosed options. Do not type the braces when you enter the option.
Key	Indicates that you should press the specified key.
Ctrl/*x*	Indicates that you should hold down the Ctrl key, then press the key specified by *x*.

NOTE

Throughout the manual, user input is entered by pressing Return at the end of a command line.

1

Before Installing the NMCC/DECnet Monitor Software

This chapter discusses the following preparations and requirements necessary for installing the NMCC/DECnet Monitor software:

- Required software
- Selecting the NMCC/DECnet Monitor node
- Registering the software license
- Performing a system backup
- Obtaining and reading the release notes
- Time required for installation
- Required system privileges
- Required disk space
- Required system parameters
- Defining the kernel account
- Installing the user interface and kernel
- Defining the GKS workstation type

1.1 Required Software

To install and run the NMCC/DECnet Monitor software, your system must have a version of VMS from Version 5.2 up to and including Version 5.3.

In addition, your system must have at least Version 4.0 of run-time DEC GKS for VMS and Version 3.0B or 3.1 of run-time VAX Rdb/VMS. For the most current supported versions, refer to the System Software Addendum (SSA).

Figure 1–1 illustrates the order in which the prerequisite software must be installed, which is as follows:

1. Install VMS
2. Install DECnet
3. Optionally, you can install the VAX Common Data Dictionary (CDD).
4. If you install CDD, you can optionally install Datatrieve for customized reports.
5. If you do not install CDD, you must install Rdb. You must install Rdb after you install Datatrieve.
6. Install GKS.
7. Install the NMCC/DECnet Monitor.

Figure 1–1: Order of Software Installation

1.2 Selecting the NMCC/DECnet Monitor Node

Before installing the NMCC/DECnet Monitor software, select the node or nodes on which you want to run the NMCC/DECnet Monitor user interface (UI) and kernel.

The NMCC/DECnet Monitor performs best on the node that is at the logical center of the network. If possible, you should choose the node with the fewest hops to all of the other nodes that you are monitoring, to keep delays and monitoring costs to a minimum.

The node on which the NMCC/DECnet Monitor kernel runs is referred to as the **executor**. The executor should be a router with high-speed asynchronous lines.

It is recommended that no more than 50 network nodes be monitored (using default polling parameters) with a single VAXstation 3100. If more than 50 nodes are to be monitored from a single system, a more powerful CPU should be used or the kernel should be distributed to another system.

1.3 Registering the Software License

To run NMCC/DECnet Monitor software, you must register the software licenses for NMCC/DECnet Monitor, GKS, and Rdb with the VMS License Management Facility (LMF). To run NMCC/DECnet Monitor software on a cluster, you must register the license on each node in the cluster.

The license registration information you need is contained in the Product Authorization Key (PAK) that is shipped with NMCC/DECnet Monitor. The PAK is a paper certificate that contains information about the license you have to run a particular software product.

It is best to register your NMCC/DECnet Monitor license before you perform the installation. During the installation, you are asked if you have registered the NMCC/DECnet Monitor license and loaded the appropriate authorization key. If you have not already done so, you can complete the installation; however, you will not be able to run the Installation Verification Procedure (IVP) or the NMCC/DECnet Monitor software. Once you perform the license registration and have loaded an authorization key, you will be able to run the IVP and use NMCC/DECnet Monitor.

To register a license, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the registration:

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your PAK.
- Issue the LICENSE REGISTER DCL command with the appropriate qualifiers that correspond to information on the PAK.

For complete information on using LMF, see the *VMS License Management Utility Manual*.

1.4 Performing a System Backup

Before installing NMCC/DECnet Monitor, it is a good idea to back up your system disk to ensure its integrity. Early in the installation procedure, VMSINSTAL asks whether you are satisfied with your system backup and gives you a chance to terminate the installation if you have forgotten to do this.

1.5 Obtaining the Release Notes

The distribution kit includes release notes, which contain information not in this documentation that Digital Equipment Corporation strongly recommends that you read before proceeding with the installation.

You can obtain the release notes during product installation; see Chapter 2. If you include OPTIONS N in the command that invokes VMSINSTAL, the installation procedure asks if you want to display or print the release notes. It is important to review the release notes in case they contain information that might affect the product installation.

VMSINSTAL copies the release notes to the following text file:
SYS$HELP:NMCC022.RELEASE_NOTES

1.6 Time Required for Installation

To install the NMCC/DECnet Monitor and new databases requires about 15 minutes. To install only new databases requires about 5 minutes; to install NMCC/DECnet Monitor without installing the databases requires about 10 minutes.

1.7 Required System Privileges

To install NMCC/DECnet Monitor, one of the following must apply:

- You must be logged into the system manager's account, SYSTEM, or
- You must be logged into an account that has either of the following:
  - the SETPRV privilege, or
  - the following privileges: CMKRNL, NETMBX, SYSPRV, TMPMBX, and WORLD.

Note that VMSINSTAL turns off the BYPASS privilege at the start of the installation.

Digital Equipment Corporation strongly recommends that you be logged into the SYSTEM account. Once NMCC/DECnet Monitor is installed, you do not need all the privileges listed here to run the program.

1.8 Required Disk Space

Installing NMCC/DECnet Monitor requires a certain amount of free storage disk space during the installation. Once NMCC/DECnet Monitor is installed, less storage space is required. The storage requirements are:

- Databases — 35,500 blocks
- NMCC/DECnet Monitor without the databases — 7,500 blocks
- NMCC/DECnet Monitor and the databases — 45,000 blocks

These figures refer to the disk space required on the system disk (system disk block cluster size = 1). These disk space requirements are approximations; actual sizes may vary, depending on your system environment, configuration, and software options selected.

To determine the number of free disk blocks on the current system disk, enter the following command at the DCL prompt:

```
$  SHOW DEVICE SYS$SYSDEVICE
```

1.9 Required System Parameters

This section lists the minimum required system parameter values for installing and using NMCC/DECnet Monitor. The default values are sufficient for those parameters not specifically listed. Depending on the types of programs and applications running at your site, you might need higher values for some settings.

Table 1–1 lists the system parameters and their required values for installing and running NMCC/DECnet Monitor. Note that these values are NMCC/DECnet Monitor requirements only; consult the GKS and Rdb installation manuals for additional GKS and Rdb requirements.

Table 1–1: System Parameter Values Required for Installing and Running NMCC/DECnet Monitor

Parameter	Minimum	Unit
GBLPAGES	1,050 unused	Pages
GBLSECTIONS	24 unused	Sections
LOCKIDTBL	8,192	Entries
LOCKIDTBL_MAX	8,192	Entries
RESHASHTBL	2,048	Entries
SRPCOUNT	4,096	Packets
SRPCOUNTV	10,000	Packets
VIRTUALPAGECNT	20,000	Pages

To determine the current parameter values and modify any to satisfy the requirements listed in the table, follow this procedure (be sure that you have system manager privileges before you begin):

1. Log in to the SYSTEM account and enter the following DCL command to invoke the SYSGEN utility:

   ```
   $ RUN SYS$SYSTEM:SYSGEN
   ```

2. Enter the following SYSGEN commands to display current parameter settings:

   ```
   SYSGEN> USE CURRENT
   SYSGEN> SHOW parameter_name
   ```

Issue the SHOW command for each parameter listed in Table 1–1 to display the current parameter values. For example:

```
SYSGEN> SHOW LOCKIDTBL
```

displays the current value of the LOCKIDTBL parameter:

```
Parameter Name   Current  Default  Minimum  Maximum  Unit  Dynamic
--------------   -------  -------  -------  -------  ----  -------
LOCKIDTBL         8,192      200       40    65535   Entries
```

To display the values of GBLSECTIONS, enter the following command:

```
SYSGEN> SHOW GBLSECTIONS
```

SYSGEN displays the current value of GBLSECTIONS (note the value that appears under "Current"):

```
Parameter Name     Current   Default   Minimum   Maximum Unit  Dynamic
--------------     -------   -------   -------   ------- ----  -------
GBLSECTIONS            512       250        20      4095 Sections
```

Note which system parameters must be modified. When you have finished displaying the parameter values, issue the EXIT command.

3. To determine the current number of unused global pages and the current number of used global sections, enter this command:

```
$  INSTALL LIST /GLOBAL /SUMMARY
```

The INSTALL utility displays the following summary:

```
           Summary of Local Memory Global Sections

258 Global Sections Used,  22580/3420 Global Pages Used/Unused
```

To determine whether you need to increase the value of the GBLPAGES parameter, compare the Global Pages Unused value in the display (3420 in the example) with the value in the table. If the value is less than the value in the table, you need to increase it.

To determine whether you need to increase the value of the GBLSECTIONS parameter, subtract the Global Sections Used value you determined with INSTALL in this step (258 in this example) from the current global section value you determined with SYSGEN in step 2 (512 in this example). If the difference is less than the value in the table, you need to increase the parameter setting.

4. If any of the current values are lower than the required values, modify them by editing the SYS$SYSTEM:MODPARAMS.DAT file, which contains statements that modify the system default parameter settings.

To define a new value for a parameter, use a statement like the following one: LOCKIDTBL = 8192

To increment the current value of a parameter, use a statement like the following one: ADD_GBLPAGES = 250

5. Run the AUTOGEN command file to recompute your system parameters. Enter the following commands:

```
$  @SYS$UPDATE:AUTOGEN SAVPARAMS GENPARAMS
$  @SYS$UPDATE:AUTOGEN SETPARAMS REBOOT
```

Because these parameters are not dynamic, your system must be rebooted for the new values to take effect. AUTOGEN will perform an automatic shutdown and reboot when it has finished changing the parameter settings. For more information about using AUTOGEN, see the instructions on modifying system parameters in the VMS documentation on system management and operations.

1.10 Determining the User Identification Code for the Kernel Process

You must define an account for the kernel process by specifying a user identification code (UIC) during the installation. If necessary, see your system manager for a UIC before you begin the installation.

1.11 Installing a User Interface Separately from the Kernel

You may install the user interface (UI) portion of the NMCC/DECnet Monitor separately from the kernel to improve NMCC/DECnet Monitor performance. Note that NMCC/DECnet Monitor reports cannot be produced on a system on which only the user interface is installed.

To install a separate user interface, first install the user interface and kernel on the system that will run the kernel. Once this installation is complete, install the user interface on the system that will run only the user interface.

Rdb should be on the same system on which you install the kernel; GKS should be on each system on which you install the user interface.

1.12 Installing a User Interface and the Kernel

If you are installing an NMCC/DECnet Monitor user interface and kernel on a system that previously contained only a user interface, you must delete the SYS$MANAGER:NMCCLOGICALS.COM file before installing the UI and kernel.

1.13 Defining the GKS Workstation Type

During the installation procedure, VMSINSTAL prompts you to define a GKS workstation type (GKS$WSTYPE) that will be the default workstation type whenever the NMCC/DECnet Monitor is invoked. The correct GKS$WSTYPE value is required to ensure the accurate display of GKS graphics.

If the device (workstation type) on which you are using the NMCC/DECnet Monitor is different from the device specified at software installation, specify an alternate GKS$WSTYPE value before you invoke the NMCC/DECnet Monitor software.

To define the device type, add the following statement to your LOGIN.COM file:

```
$ DEFINE GKS$WSTYPE n
```

where *n* is the workstation type value.

Some specifiable values are:

- 13 — VT240/41 with color option, VT340/41
- 14 — VT240/41 with black and white display
- -1 — VT100 (non-ReGIS terminal)

Not all GKS workstation types are supported by NMCC/DECnet Monitor. For a complete description of GKS workstation type values, see the GKS documentation or enter the following command:

```
$  HELP GKS WORKSTATION
```

2

Installing and Verifying the NMCC/DECnet Monitor Software

This chapter explains how to install the NMCC/DECnet Monitor software. You can install the user interface and the kernel or you can install just the user interface; the installation procedure describes the steps needed to do both. Section 2.7 describes the log files created by NMCC/DECnet Monitor.

Make sure the preinstallation tasks described in Chapter 1 have been completed before starting the installation.

If you are installing an NMCC/DECnet Monitor user interface and kernel on a system that previously contained only a user interface, you must delete the SYS$MANAGER:NMCCLOGICALS.COM file before installing the UI and kernel.

Digital Equipment Corporation recommends that you perform the installation from the system manager's account, SYSTEM.

2.1 Invoking VMSINSTAL

To start the installation, invoke the VMSINSTAL command procedure from the SYSTEM account using the following command:

```
$  @SYS$UPDATE:VMSINSTAL NMCC022 device-identifier OPTIONS N
```

NMCC022

Installs NMCC/DECnet Monitor Version 2.2.

device-identifier

The name of the device on which you plan to mount the media that contains the software you are installing. For example, MUA0: is the device name for a tape drive (the colon (:) is part of the device name). It is not necessary to use the console drive for this installation. However, if you use the console drive, you should replace any media you removed once the installation is completed.

OPTIONS N

An optional parameter that instructs VMSINSTAL to ask whether you want to display or print the release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not issue the prompt. Digital Equipment Corporation strongly recommends that you read the release notes before proceeding with this installation to make sure there are no changes to the installation procedure.

For information about other VMSINSTAL options, see the *VMS System Manager's Manual*.

The following command invokes VMSINSTAL to install NMCC/DECnet Monitor from tape drive MUA0: and displays the system response.

```
$  @SYS$UPDATE:VMSINSTAL NMCC022 MUA0: OPTIONS N
     VAX/VMS Software Product Installation Procedure V5.3

It is dd-mmm-yyyy at hh:mm.

Enter a question mark (?) at any time for help.
```

If you do not supply either the product name or the device name, VMSINSTAL prompts you for this information later in the installation procedure. VMSINSTAL does not prompt you for any options, so be sure to include OPTIONS N on the VMSINSTAL command line to access the release notes during the installation.

2.2 The Installation Procedure — Step by Step

The installation dialog consists of a series of questions and informational messages. This section discusses the questions and responses that appear during the installation. See Appendix A for a sample installation procedure.

To terminate the installation procedure at any time, press Ctrl/Y. VMSINSTAL deletes all files it has created and exits. You can then start the installation again.

Each question in the installation starts with an asterisk (*). Some questions show the default response in brackets, for example [YES]. If you want to give the default response, press Return.

The following is a step-by-step discussion of the installation procedure.

1. Active processes

   VMSINSTAL displays a list of all active processes and asks if you want to continue the installation. NO is the default response to the question.

   ```
   %VMSINSTAL-W-ACTIVE, The following processes are still active:
    process_name
   * Do you want to continue anyway [NO]?
   ```

2. System backup

   VMSINSTAL asks if you are satisfied with your system backup.

   ```
   * Are you satisfied with the backup of your system disk [YES]?
   ```

   You should always back up your system disk before performing an installation. If you are satisfied with the backup of your system disk, press Return. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

3. Mounting the media containing the software

   VMSINSTAL identifies the device name on which the distribution volume is to be mounted and asks if you are ready to continue with the installation. You should now mount the first distribution volume on the device you specified when you invoked VMSINSTAL. VMSINSTAL begins to install the product whose name you entered on the VMSINSTAL command line.

   ```
   Please mount the first volume of the set on MUA0:
   * Are you ready?   YES
   ```

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing NMCC/DECnet Monitor has been mounted on the specified device and that the installation has begun.

If you entered the wrong device name when you invoked VMSINSTAL and need to restart the installation, enter NO in response to the prompt.

```
%MOUNT-I-MOUNTED, NMCC022 MOUNTED ON _$$MUA0:  (NODE 1)
The following products will be processed:
  NMCC V2.2

       Beginning installation of NMCC V2.2 at hh:mm

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
```

4. Displaying or printing release notes

   If you specified OPTIONS N when you invoked VMSINSTAL, you are now given four options for reviewing the release notes. As the installation message indicates, the release notes are always copied to SYS$HELP. For more information about release notes, see Section 1.5.

```
Release notes included with this kit are always copied to SYS$HELP.

Additional Release Notes Options:

    1.  Display release notes
    2.  Print release notes
    3.  Both 1 and 2
    4.  None of the above

* Select option [2]:
```

   If you select option 1, VMSINSTAL displays the release notes immediately on the terminal. You can terminate the display at any time and return to the installation by pressing Ctrl/C.

   If you select option 2, VMSINSTAL prompts you for the name of the print queue to which the release notes are sent for printing. You can enter a queue name or press Return to send the file to the default output print device.

```
* Queue name [SYS$PRINT]:
```

   If you select option 3, VMSINSTAL displays the release notes immediately on the terminal then prompts you for the name of the print queue for the printed version.

   If you select option 4, VMSINSTAL proceeds without taking any of the actions described above.

5. Continuing the installation

   VMSINSTAL now asks if you want to continue the installation. To continue, enter YES. Otherwise, press Return. The release notes are copied to SYS$HELP. If you are running VMSINSTAL just to get the release notes, enter NO to terminate the installation.

```
* Do you want to continue the installation [NO]?  YES
%VMSINSTAL-I-RELMOVED, The product's release notes have been
 successfully moved to SYS$HELP.
```

   The NMCC/DECnet Monitor release notes are copied to the following file: SYS$HELP:NMCC022.RELEASE_NOTES

6. Purging files

   VMSINSTAL now asks whether it should purge files that are superseded by this installation. If you answer YES to this question, VMSINSTAL purges files from previous versions of NMCC/DECnet Monitor. If you want to retain existing database files, you can answer YES to this prompt and not delete existing database files because a later prompt addresses just the database files.

```
* Do you want to purge files replaced by this installation [YES]?
```

   Purging is recommended; however, if you need to keep files from the previous version, enter NO in response to the question.

7. VMSINSTAL asks if you want to install only the user interface on this system. For more information about installing the user interface separately from the kernel, see Section 1.11.

```
* Do you want to install only the user interface [NO]?
```

   Press Return to accept the default (NO) and proceed to step 8. Enter YES to install only the user interface and proceed to step 10.

8. VMSINSTAL displays informative text and a warning, then asks whether you want to install just the database files.

```
The NMCC/DECnet Monitor installation procedure now asks if you wish
to install JUST the blank NMCC database files. The database files may
only be installed on a system that has a NMCCKERNEL account. If you wish
to install the entire NMCC/DECnet Monitor product, answer "NO"
to the following question.

IF YOU ANSWER YES TO THE FOLLOWING QUESTION,
ANY PREVIOUSLY EXISTING NMCC DATABASE FILES WILL BE PURGED!

* Do you want to install just the database files [NO]?
```

To proceed with the installation, press Return or type NO. To install just the database files, type YES; VMSINSTAL installs the database files and terminates the installation. Existing database files are purged if you answered the question asked in step 6 with YES, otherwise they are retained.

9. If you choose to proceed with the installation (by answering NO to the previous question), VMSINSTAL provides informative text and a warning, then asks whether you want to install new NMCC database files. You can proceed with the installation with existing NMCC database files.

```
This installation will give you the option of keeping the old NMCC database
files or installing new (empty) NMCC database files.
If this is a new NMCC installation, you must install new NMCC database files.

IF YOU ANSWER YES TO THE FOLLOWING QUESTION,
ANY PREVIOUSLY EXISTING NMCC DATABASE FILES WILL BE PURGED!

* Do you want to install new NMCC database files [YES]?
```

If you select the default (YES), VMSINSTAL installs new database files, purging existing files if you chose to purge files, or retaining them if you did not choose to purge files.

If you choose not to install new NMCC/DECnet Monitor database files by answering NO, VMSINSTAL proceeds with the installation of the kernel and user interface. The existing database files are not superseded.

This installation puts all NMCC/DECnet Monitor files on the system disk. To move them to another disk after the installation, see the *NMCC/DECnet Monitor Implementation* manual.

10. VMSINSTAL now checks to determine whether all system parameters meet or exceed required values. If the parameters are set correctly, VMSINSTAL displays this message:

```
System parameter prerequisites are set properly
```

If any parameters are not set correctly, VMSINSTAL displays messages that identify the parameters and terminates the installation. See Section 1.9 for a discussion of required system parameter values.

11. The system then prompts you to enter the GKS workstation type value as follows:

```
* Define GKS$WSTYPE:
```

Enter the GKS workstation type value that identifies the terminal or workstation on which you are running the NMCC/DECnet Monitor. Some specifiable values are:

- -1 — VT100 (non-ReGIS terminal)
- 13 — VT240/41 with color option or VT340/41
- 14 — VT240/41 with black and white display

See the GKS documentation for a complete description of GKS workstation type values.

12. If you are installing the kernel and user interface, VMSINSTAL determines whether GKS and Rdb are installed on the system. If you are installing just the user interface, VMSINSTAL determines whether GKS is installed on the system. The installation fails if the prerequisite software is not installed or if licenses for the prerequisite software are not found on the system. VMSINSTAL displays the applicable message:

```
%NMCC-I-GKSOK, GKS found
%NMCC-I-RDBOK, RDB found
```

13. Confirming registration of the software license

    The installation procedure displays information about the particular license, then asks whether the authorization key has been registered and loaded.

```
Product:      NMCC-MONITOR
Producer:     DEC
Version:      2.2
Release Date: 05-JAN-1990

* Does this product have an authorization key registered and loaded?
```

    If you have registered and loaded the authorization key, enter YES.

    If you have not registered and loaded your authorization key, you must answer NO to this question. You will be able to install NMCC/DECnet Monitor but you will not be able to run the Installation Verification Procedure (IVP) or use the software until you register and load the authorization key. VMSINSTAL displays a message indicating that the IVP will not be run.

    For more information about registering the software license, see Section 1.3.

14. If you are installing the NMCC/DECnet Monitor for the first time, VMSINSTAL prompts you for the Greenwich Mean Time (GMT) offset for your area.

```
%VMSINSTAL-I-RESTORE, Restoring product saveset B ...

* Please enter the current GMT offset for your timezone [0]:
```

The GMT offset is the number of hours that you have to add to your local time to get Greenwich Mean Time. For example, if your node is on the east coast of the United States and your local time is Eastern Standard Time, your GMT offset is +5. You would have to add five hours to your time to get Greenwich Mean Time.

The format for the GMT offset is ±*hh*.

15. VMSINSTAL then creates the NMCC/DECnet Monitor logical names. These messages do not appear if you have installed a previous version of the NMCC/DECnet Monitor.

```
%NMCC-I-CRELOGICALS, Creating file NMCCLOGICALS.COM

%NMCC-I-NMCCLOGICALS, Invoking NMCCLOGICALS.COM to define NMCC logical names
```

16. VMSINSTAL then describes an account for the kernel and asks whether you want to create the NMCCKERNEL account.

```
 ******************************************************************************
 *                                                                            *
 * The NMCC installation procedure may create an account under which the      *
 * NMCC Kernel runs. All privileges and quotas required by the Kernel are     *
 * set up in this account by the installation procedure. If this account      *
 * does not already exist, and you wish it to be created, then you should     *
 * answer YES to the following question. Otherwise answer NO or just press    *
 * RETURN.                                                                    *
 *                                                                            *
 ******************************************************************************

* Would you like the NMCCKERNEL account to be created [NO]?
```

If this is the first time you have installed the NMCC/DECnet Monitor, answer YES. Otherwise, answer NO or press Return and proceed to Section 2.3.

17. If you ask for an NMCCKERNEL account to be created, VMSINSTAL asks for a UIC for the kernel account:

```
* UIC for Kernel account:
```

The UIC is the User Identification Code, which consists of two integers separated by a comma. The system manager should select the UIC for the NMCCKERNEL account. The UIC should not belong to another user or VMSINSTAL will terminate the installation. The first number in the UIC pair should not be between 1 and 8 because these are reserved for system UICs. The following are examples of valid UICs:

```
[123,456]
[12,3]
```

Type the UIC and press Return. You may type square brackets around it if you wish.

18. After you enter the UIC for the kernel account, VMSINSTAL displays informative text about the account password and asks you to press Return when you are ready to continue.

```
************************************************************
This installation requires the creation of the NMCCKERNEL
account.  You MUST choose a password for this account.
************************************************************

* Please enter <RETURN> to continue:
```

19. VMSINSTAL then displays information about valid passwords and prompts you for the password:

```
************************************************************
The entire installation will FAIL if you do not enter a valid
password for the NMCCKERNEL account.  You will be given
3 chances to verify your password.  This installation
procedure requires at least 6 characters for the
RDB$REMOTE password.  Valid characters for a password are:

   A through Z
   a through z
   0 through 9
   $ (dollar sign)
   _ (underscore)

As with the DCL SET PASSWORD command, your input will not
appear on the terminal.  And to protect against typing errors
that are not seen when entering the password, you must enter
the password twice.
************************************************************

* Please enter PASSWORD to be used for NMCCKERNEL account:

* Please verify the PASSWORD entered for NMCCKERNEL account:
```

2.3 Installation Messages

The installation procedure now displays a number of informational messages that report on the progress of the installation, asking no further questions. If the installation procedure has been successful thus far, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates DCL tables, if necessary. If you asked for files to be purged, the purging is done now.

```
%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named NMCCKERNEL.
%UAF-I-ADDMSG, user record successfully added
%UAF-I-RDBADDMSGU, identifier NMCCKERNEL value: [uic]
 added to rights data base
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named NMCCKERNEL.
%UAF-I-MDFYMSG, user record(s) updated

*************************************************************************
* The account NMCCKERNEL has been created solely for running the       *
* NMCCKERNEL.  You MUST change the NMCCKERNEL password the first time  *
* the account is used.                                                  *
*************************************************************************

%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[NMCC]/LOG/OWNER_UIC=[uic]/PROTECTION=(S:WRE,O:RWE,G:RWE,W:RE).
%CREATE-I-CREATED, VMI$ROOT:[NMCC] created
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSTEST.NMCCVMS]/LOG/OWNER_UIC=[123,124]
 /PROTECTION=(S:WRE,O:RWE,G:RWE,W:RE).
%CREATE-I-CREATED, VMI$ROOT:[SYSTEST.NMCCVMS] created

%VMSINSTAL-I-RESTORE,Restoring product saveset D ...
INSTALLING DATABASES ON DISK

%NMCC-I-NMCCCMDS, Installing NMCC commands in VMS DCL tables

%NMCC-I-VMSHLP, Installing VMS help entry for NMCC

%NMCC-I-END, End of installation phase.
*****************************************************************************
*****************************************************************************
Please remember to insert

        $ @SYS$STARTUP:NMCCLOGICALS

in SYSTARTUP_V5.COM.

Before creating your database files, or starting the kernel, please
ensure that the devices pointed to by the logical names in
SYS$STARTUP:NMCCLOGICALS.COM do not have DISKQUOTA enabled. If
any of those devices DOES have DISKQUOTA enabled, please ensure
that the NMCCKERNEL account has adequate quota on the device(s)
in question. (Using the VMS Utility DISKQUOTA, which is invoked
by typing  $ MCR DISKQUOTA).
```

```
To start the NMCC Kernel running, type

        $ @NMCC$EXE:NMCCBOOTSTRAP

To run the Installation Verification Procedure for NMCC, type

        $ @SYS$TEST:NMCCIVP

******************************************************************************
******************************************************************************
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
```

2.4 Completing the Installation

The following messages indicate that the installation is complete.

```
Installation of NMCC V2.2 completed at hh:mm

VMSINSTAL procedure done at hh:mm
```

You can now log out of the privileged account. Note that VMSINSTAL deletes or changes entries in the process symbol tables during the installation for the duration of the session. Therefore, if you are going to continue using the system manager's account and you want to restore these symbols, you should log out and log in again.

The NMCC/DECnet Monitor installation procedure adds directories and files to your system. See Appendix B for lists of those directories and files.

2.5 Installation Errors

If errors occur during the installation, VMSINSTAL displays descriptive error messages. If the installation fails, the following message is displayed:

```
%VMSINSTAL-E-INSFAIL, The installation of NMCC/DECnet Monitor V2.2
 has failed.
```

Errors can occur during the installation if any of the following conditions exist:

- The operating system version is incorrect.
- A prerequisite software version is incorrect.
- Quotas necessary for successful installation are insufficient.
- System parameter values for successful installation are insufficient.

- The VMS help library is currently in use.

For descriptions of the error messages generated by these conditions, see the VMS documentation on system messages, recovery procedures, and VMS software installation. If you are notified that any of these conditions exist, you should take the appropriate action, as described in the message. See Chapter 1 for information on installation requirements.

2.6 The Installation Verification Procedure

The Installation Verification Procedure (IVP) indicates whether or not the NMCC/DECnet Monitor software is installed correctly by:

- Starting the NMCC/DECnet Monitor
- Running a user session

2.6.1 Running the Installation Verification Procedure

If you did not choose to run the IVP automatically after software installation, you can run it for a system that contains a kernel and a user interface, or a system that contains a user interface only.

2.6.1.1 Installation Verification Procedure for the Kernel and the UI

You can run the IVP for a system containing a kernel and a user interface any time after software installation by typing:

```
$ @SYS$STARTUP:NMCCLOGICALS
$ @SYS$TEST:NMCCIVP
```

2.6.1.2 Installation Verification Procedure for the User Interface

To run the IVP for a system with a user interface only, you must type:

```
$ @SYS$STARTUP:NMCCLOGICALS
$ @SYS$TEST:NMCCUI_IVP
```

2.6.1.3 Installation Verification Procedure Dialog

The IVP produces the following dialog.

```
NMCCIVP-I-IVPSTART, Starting installation verification procedure

      Checking NMCC/DECnet Monitor files ...

This IVP procedure will attempt to start NMCCKERNEL. Make sure
Rdb is STARTED on your system. CDD is not required for NMCC, but
if it is installed on your system, it will be used. So, if you have
CDD installed, make sure it is STARTED too.

Do you wish to continue [Y] ?:
```

Enter Y or Return to continue.

```
The User Interface will now be started. When you press return
the screen will clear and you will see an NMCC/DECnet
Monitor User Interface display.

Please check this display against that in your Installation
Guide. If they are the same, then the NMCC/DECnet Monitor
is functioning correctly.

Once the name of the network, ACE appears on the screen,
you must type EXIT to exit the User Interface and
end the IVP.
```

Note that when you are installing the user interface only, ACE does not appear on the screen.

```
        To start the User Interface, press the RETURN key.

Hit RETURN when ready to continue :

        Starting the User Interface ...
```

The Network Summary Display, shown in Example 2–1, appears on the screen when you have installed a kernel and a user interface on a system.

Example 2–1: Network Summary Display

To Be Supplied

The command procedure types the command SET NETWORK NAME ACE in the command area on a system which includes a kernel and a user interface. This command causes the name ACE to appear in the NETWORK field. If ACE appears in the Network Summary display, the verification is successful. When you are ready to continue with the IVP, type EXIT and press Return. The NMCC/DECnet Monitor Network Summary display disappears and you receive the following messages:

```
%DCL-W-SKPDAT, image data (records not beginning with "$") ignored

        The NMCC/DECnet Monitor IVP is now complete.
        No errors detected. If the output from the
        NMCC/DECnet Monitor User Interface
        was the same as that in your Installation Guide
        then the NMCC/DECnet Monitor is installed correctly.
```

2.7 Log Files

The NMCC/DECnet Monitor creates various log files to report on errors generated by the database servers, the kernel, or event logging. Each log file is explained below.

- NMCC$HOME:NMCCLDBSERVER_n.LOG

  The database server processes report run-time errors in this file. *n* is either 1 or 2, the sequence number assigned to each server. In the event of a fatal crash, the kernel automatically restarts and the file(s) are renamed to:

  NMCC$HOME:NMCCLDBSERVER_n.LOG_OLD

  See *NMCC/DECnet Monitor Implementation* for a complete list of database server messages.

- NMCC$HOME:NMCCDBA.LOG

  Output from the NMCCDBA.COM procedure. If there was an error creating a database, this log will contain the error.

- NMCC$HOME:NMCCEVENT.LOG

  The event collector submits NMCCEVENT.COM to the batch processor which performs NCP commands that enable event logging. If there are problems enabling event logging, this log should be checked.

- NMCC$HOME:NMCCKERNEL.LOG

  This is the SYS$OUTPUT of the kernel detached process. Whenever a connect fails to occur, this log indicates if the kernel has crashed for some reason.

  Note that if the log file contains the following error message, it indicates the disk device is out of space and the NMCC/DECnet Monitor database is corrupted:

  ```
  EXIT STATUS: %X00DDAGE4
  ```

  The NMCCBOOTSTRAP.COM procedure allows 20 crashes to occur—each time restarting the kernel image. After 20 crashes, it will no longer automatically resubmit itself. If in the kernel log file an exception indicates abnormal database termination, read the NMCCLDBSERVER_n.LOG_OLD logs to determine the reason for the termination.

  To control output to the NMCCKERNEL.LOG file, issue the following command or include it in your system start-up file:

  ```
  DEFINE/SYSTEM/EXECUTIVE NMCC$LOGICAL_CONNECT_FAILS n
  ```

where *n* is either 0 (output to log is turned off) or 1 (send output to log file).

3

After Installing the NMCC/DECnet Monitor Software

This chapter discusses the following tasks you need to perform after you have installed the NMCC/DECnet Monitor software.

- Editing the system startup file
- Rebooting the system
- Running the NMCC/DECnet Monitor in the VAXcluster environment
- Setting user account privileges
- Setting user account quotas
- Enhancing NMCC/DECnet Monitor performance

3.1 Editing the System Startup File

After completing the installation procedure, you must edit the system startup file, SYS$MANAGER:SYSTARTUP_V5.COM, to provide for automatic startup of the NMCC/DECnet Monitor.

Add the following statements after the statement that invokes the network startup command procedure and after the startup commands for Rdb, GKS, and CDD (if CDD is installed on your system):

```
$ @SYS$STARTUP:NMCCLOGICALS
$ @NMCC$EXE:NMCCBOOTSTRAP
```

3.2 Rebooting the System

You can reboot your system after you have installed NMCC/DECnet Monitor and edited the system startup file. A system reboot verifies that NMCC/DECnet Monitor is ready for use and ensures that the edits to the system startup command file have been made. Rebooting is optional.

3.3 Running NMCC/DEC Monitor in the Cluster Environment

To run the NMCC/DECnet Monitor on a cluster, you must register the product license on each node in the cluster. For more information about the VMS License Management Facility (LMF), see Section 1.3.

3.4 Setting User Account Privileges

To use NMCC/DECnet Monitor, an account must have at least the TMPMBX and NETMBX privileges. Use the VMS Authorize utility to ensure that users have the privileges they require.

The following example shows how to use Authorize to grant these privileges. The user name in this example is SMITH.

```
$  SET DEFAULT SYS$SYSTEM
$  RUN AUTHORIZE
UAF>  MODIFY SMITH/PRIV=TMPMBX
%UAF-I-MDFYMSG, user record(s) updated
UAF>  MODIFY SMITH/PRIV=NETMBX
%UAF-I-MDFYMSG, user record(s) updated
UAF>  EXIT
%UAF-I-DONEMSG, system authorization file modified
%UAF-I-NAFNOMODS, no modifications made to network authorization file
%UAF-I-RDBNOMODS, no modifications made to rights database
$
```

3.5 Setting User Account Quotas

To use NMCC/DECnet Monitor, user accounts on your system must have sufficient quotas. Table 3–1 summarizes the required user account quotas. Default values are sufficient for any quotas not listed in this table.

Table 3–1: Required NMCC/DECnet Monitor User Account Quotas

Account Quota	Value
ASTLM	60
BIOLM	72
DIOLM	60
WSDEF	512
WSEXTENT	4,096
WSQUOTA	2,048

User account quotas are stored in the file SYSUAF.DAT. You use the VMS Authorize utility to verify and change user account quotas. Perform these steps to modify your account quotas:

1. Set your directory to SYS$SYSTEM, then run Authorize:

   ```
   $  SET DEFAULT SYS$SYSTEM
   $  RUN AUTHORIZE
   UAF>
   ```

2. At the Authorize prompt (UAF>), use the SHOW command with an account name to check a particular account. For example:

   ```
   UAF>  SHOW SMITH
   ```

3. To change a quota, use the MODIFY command, which has the following format:

   ```
   UAF>  MODIFY account-name /quota-name=nnnn
   ```

   The following example changes the FILLM quota for the SMITH account.

   ```
   UAF>  MODIFY SMITH /BIOLM=72
   ```

4. Exit the utility with the EXIT command. After you exit from the utility, messages indicate whether or not changes were made. Once the changes have been made, you must log out and log in again for the new quotas to take effect.

   For more information on modifying account quotas, see the description of the Authorize utility in the *VMS System Manager's Manual*.

3.6 Enhancing NMCC/DECnet Monitor Performance

This section explains how to install the NMCC/DECnet Monitor as a shared image using the VMS Install Utility (INSTALL) to enhance its performance.

If NMCC/DECnet Monitor will be used extensively on your system, you can reduce the system overhead and memory requirements by installing it as a shared image. You should perform the installation on a system that has just been bootstrapped because the available space in the global page table is less likely to be fragmented.

First, determine the number of available global pages and global sections on your system (see Section 1.9).

Once you have reset the system parameter values, invoke the VMS Install Utility from a privileged account and install NMCC/DECnet Monitor as a shared image by issuing the following commands:

```
$  INSTALL
INSTALL>  ADD /OPEN/SHARED SYS$SYSTEM:NMCCKERNEL.EXE
INSTALL>  ADD /OPEN/SHARED SYS$SHARE:NMCCSHR.EXE
INSTALL>  EXIT
$
```

You must also add the following lines to the appropriate system startup command file so that each time the system is started, NMCC/DECnet Monitor is available as a shared image. (If your site has modularized your startup procedures, be sure you add the lines to the correct file.) The default startup command file for VMS V5.x is SYS$MANAGER:SYSTARTUP_V5.COM.

```
$ INSTALL
ADD /OPEN/SHARED SYS$SYSTEM:NMCCKERNEL.EXE
ADD /OPEN/SHARED SYS$SHARE:NMCCSHR.EXE
EXIT
```

3.7 Running the NMCCKERNEL from the Kernel Account

The installer may choose to have the installation procedure create a new user account called NMCCKERNEL. The NMCCKERNEL account runs the kernel process and owns the files used by the NMCC kernel.

During the installation, VMSINSTAL prompts you to select a UIC for the new NMCCKERNEL account. The file NMCCBOOTSTRAP.COM is then modified to include the UIC.

After the installation has completed, log into the NMCCKERNEL account to grant the account DETACH and SYSNAM privileges needed to bootstrap the kernel. Enable those privileges with the following command:

```
$  SET PROCESS/PRIV=(DETACH,SYSNAM)
```

NMCCBOOTSTRAP creates a detached job to execute the NMCCKERNEL (process) and NMCCLDBSERVER (subprocess) images, which create output log files in the logical directory NMCC$HOME and read or update database files from their corresponding directories (NMCC$STATIC_DIR, NMCC$COUNTER_DIR, and so on). Ensure that the directories and database files are accessible by the NMCCKERNEL detached job running under your selected UIC.

An access conflict can arise if you redefine the NMCC logicals in the file SYS$MANAGER:NMCCLOGICALS.COM to point to a directory owned by a different UIC, or create database files from an account other than NMCCKERNEL and thus give them a different UIC. Note that the detached job must have access to the directory NMCC$HOME to create the output log file and record any other runtime errors.

A

Sample Installation of NMCC/DECnet Monitor

```
$ @SYS$UPDATE:VMSINSTAL NMCC022 MTA0: OPTIONS N

 VAX/VMS Software Product Installation Procedure V5.2


It is date at time

Enter a question mark (?) at any time for help.
* Are you satisfied with the backup of your system disk [YES]? YES

The following products will be processed:
  NMCC V2.2

 Beginning installation of NMCC V2.2 at time

%VMSINSTAL-I-RESTORE, Restoring product saveset A ...

    Release notes included with this kit are always copied to SYS$HELP.

    Additional Release Notes Options:

 1.  Display release notes
 2.  Print release notes
 3.  Both 1 and 2
 4.  None of the above

* Select option [2]: 4
* Do you want to continue the installation [NO]? YES
%VMSINSTAL-I-RELMOVED , The product's release notes have been
 successfully moved to SYS$HELP.
* Do you want to purge files replaced by this installation [YES]? YES
* Do you want to install only the user interface [NO]? NO

  The NMCC/DECnet Monitor installation procedure now asks if you wish
  to install JUST the blank NMCC database files. The database files may
  only be installed on a system that has a NMCCKERNEL account. If you wish
  to install the entire NMCC/DECnet Monitor product, answer "NO"
  to the following question.
```

```
  IF YOU ANSWER YES TO THE FOLLOWING QUESTION,
  ANY PREVIOUSLY EXISTING NMCC DATABASE FILES WILL BE PURGED!


* Do you want to install just the database files [NO]? NO

  This installation will give you the option of keeping the old NMCC database
  files or installing new (empty) NMCC database files.
  If this is a new NMCC installation, you must install new NMCC database files.

  IF YOU ANSWER YES TO THE FOLLOWING QUESTION,
  ANY PREVIOUSLY EXISTING NMCC DATABASE FILES WILL BE PURGED!


* Do you want to install new NMCC database files [YES]? YES

        System parameter prerequisites are set properly


* Define GKS$WSTYPE: 13
%NMCC-I-GKSOK, GKS found
%NMCC-I-RDBOK, RDB found

        Product:      NMCC-MONITOR
        Producer:     DEC
        Version:      2.2
        Release Date: 05-JAN-1990

* Does this product have an authorization key registered and loaded? YES
%VMSINSTAL-I-RESTORE, Restoring product saveset B ...

* Please enter the current GMT offset for your timezone [0]: 4

%NMCC-I-CRELOGICALS, Creating file NMCCLOGICALS.COM

%NMCC-I-NMCCLOGICALS, Invoking NMCCLOGICALS.COM to define NMCC logical names


 ******************************************************************************
 *                                                                            *
 *      The NMCC installation procedure may create an account under which the*
 * NMCC Kernel runs. All privileges and quotas required by the Kernel are    *
 * set up in this account by the installation procedure. If this account     *
 * does not already exist, and you wish it to be created, then you should    *
 * answer YES to the following question. Otherwise answer NO or simply hit   *
 * RETURN.                                                                    *
 *                                                                            *
 ******************************************************************************
* Would you like the NMCCKERNEL account to be created [NO]? YES
* UIC for Kernel account: [123,124]

    ************************************************************
```

```
    This installation requires the creation of the NMCCKERNEL
    account.  You MUST choose a password for this account.

    ************************************************************

* Please enter <RETURN> to continue:

    ************************************************************

    The entire installation will FAIL if you do not enter a valid
    password for the NMCCKERNEL account.  You will be given
    3 chances to verify your password.  This installation
    procedure requires at least 6 characters for the
    RDB$REMOTE password.  Valid characters for a password are:

       A through Z
       a through z
       0 through 9
       $ (dollar sign)
       _ (underscore)

    As with the DCL SET PASSWORD command, your input will not
    appear on the terminal.  And to protect against typing errors
    that are not seen when entering the password, you must enter
    the password twice.

    ************************************************************

* Please enter PASSWORD to be used for NMCCKERNEL account:

* Please verify the PASSWORD entered for NMCCKERNEL:


%VMSINSTAL-I-ACCOUNT, This installation creates an ACCOUNT named NMCCKERNEL.
%UAF-I-ADDMSG, user record successfully added
%UAF-I-RDBADDMSGU, identifier NMCCKERNEL value: [000123,000124]
 added to rights data base
%VMSINSTAL-I-ACCOUNT, This installation updates an ACCOUNT named NMCCKERNEL.
%UAF-I-MDFYMSG, user record(s) updated


      ************************************************************************
      * The account NMCCKERNEL has been created solely for running the       *
      * NMCCKERNEL.  You MUST change the NMCCKERNEL password the first time  *
      * the account is used.                                                 *
      ************************************************************************
```

```
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[NMCC]/LOG/OWNER_UIC=[123,124]/PROTECTION=(S:WRE,O:RWE,G:RWE,W:RE).
%CREATE-I-CREATED, VMI$ROOT:[NMCC] created
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
 VMI$ROOT:[SYSTEST.NMCCVMS]/LOG/OWNER_UIC=[123,124]
 /PROTECTION=(S:WRE,O:RWE,G:RWE,W:RE).
%CREATE-I-CREATED, VMI$ROOT:[SYSTEST.NMCCVMS] created


%VMSINSTAL-I-RESTORE, Restoring product saveset D ...
INSTALLING DATABASES ON DISK

%NMCC-I-NMCCCMDS, Installing NMCC commands in VMS DCL tables

%NMCC-I-VMSHLP, Installing VMS help entry for NMCC

%NMCC-I-END, End of installation phase.

******************************************************************************
******************************************************************************

        Please remember to insert

                $ @SYS$STARTUP:NMCCLOGICALS

        in SYSTARTUP_V5.COM.

        Before creating your database files, or starting the kernel, please
        ensure that the devices pointed to by the logical names in
        SYS$MANAGER:NMCCLOGICALS.COM do not have DISKQUOTA enabled. If
        any of those devices DOES have DISKQUOTA enabled, please ensure
        that the NMCCKERNEL account has adequate quota on the device(s)
        in question. (Using the VMS Utility DISKQUOTA, which is invoked
        by typing  $ MCR DISKQUOTA).


        To start the NMCC Kernel running, type

                $ @NMCC$EXE:NMCCBOOTSTRAP


        To run the Installation Verification Procedure for NMCC, type

                $ @SYS$TEST:NMCCIVP

******************************************************************************
******************************************************************************
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
        Installation of NMCC V2.2 completed at time

        VMSINSTAL procedure done at time
```

B
Installed Directories and Files

Table B–1 lists the files that are installed on the system disk by the installation procedure and provides their approximate sizes in blocks.

Table B–1: NMCC/DECnet Monitor Installed Files

File Name	Blocks
[SYSTEST]NMCCIVP.COM	19
[SYS0.NMCC]NMCCRPTLOGRECS.DTR	53
[SYS0.NMCC]NMCCRPTSUMRECS.DTR	16
[SYS0.NMCC]NMCCSCHEMA.RDO	77
[SYS0.SYSEXE]NMCCEVENT.COM	5
[SYS0.SYSEXE]NMCCHISTORY.COM	2
[SYS0.SYSEXE]NMCC.CLD	4
[SYS0.SYSEXE]NMCCBOOTSTRAP.COM	12
[SYS0.SYSEXE]NMCCCRE.COM	3
[SYS0.SYSEXE]NMCCDBA.COM	18
[SYS0.SYSEXE]NMCCDBO.COM	530
[SYS0.SYSEXE]NMCCKERNEL.EXE	880
[SYS0.SYSEXE]NMCCLDBSERVER.EXE	1297
[SYS0.SYSEXE]NMCCRPT.COM	1

Table B–1 (Cont.): NMCC/DECnet Monitor Installed Files

File Name	Blocks
[SYS0.SYSEXE]NMCCRPTNMC.EXE	239
[SYS0.SYSEXE]NMCCRPTNMS.EXE	42
[SYS0.SYSEXE]NMCCRPTOUT.EXE	118
[SYS0.SYSEXE]NMCCRPTPRS.EXE	72
[SYS0.SYSEXE]NMCCSTARTKERNEL.COM	12
[SYS0.SYSEXE]NMCCUI.EXE	2126
[SYS0.SYSHLP]NMCCRPTHELP.HLB	78
[SYS0.SYSHLP]NMCCUI.HLB	477
[SYS0.SYSHLP]NMCCFIELDS.HLB	477
[SYS0.SYSMGR]NMCCLOGICALS.COM	1
[SYS0.SYSMSG]NMCCMSG.EXE	123

The following files are updated:

[SYS0.SYSHLP]HELPLIB.HLB;4
[SYS0.SYSLIB]DCLTABLES.EXE;4